

ABSTRACT OF THE DISCLOSURE

A method and apparatus for a spin-valve type magnetoresistance sensor having a free and pinned magnetic layer stacked with a non-magnetic interposed layer are disclosed. Specifically, the spin-valve type magnetoresistance sensor of the present invention is equipped with a free ferromagnetic layer, a pinned ferromagnetic layer, a non-magnetic spacer layer which is sandwiched between the aforementioned ferromagnetic layers, an anti-ferromagnetic layer which is disposed adjacent to the aforementioned pinned ferromagnetic layer and which is used to pin the direction of magnetization of said pinned ferromagnetic layer, a non-magnetic back layer which is disposed adjacent to the aforementioned free ferromagnetic layer and which is stacked on the opposite side the free ferromagnetic layer from the aforementioned nonmagnetic spacer layer, and an electron-reflective layer which is disposed adjacent to the aforementioned back layer and which is stacked on the opposite side of the back layer from the aforementioned free ferromagnetic layer.